

We claim:

1. A method of selective data transmission comprising:

transmitting a plurality of data packets wherein at least a portion of the data packets have at least one predetermined identifier;

selecting the data packets having the predetermined identifier;

forwarding the selected data packets to at least one recipient.

2. The method of claim 1 wherein the step of transmitting comprises sending the data packets over a local area network to an access point, and wherein the step of forwarding comprises wireless transmission of the identified data packets from the access point to the recipient.

3. The method of claim 1 wherein the step of selecting comprises comparing the data packets with a membership table for selecting each predetermined identifier respectively associated with each of the at least one recipients, and discarding data packets not having a predetermined identifier included in the membership table, so as to give priority to identified data packets.

4. The method of claim 3 wherein the membership table selects identified data packets that are multicast destination packets each having a multicast destination address under at least one of IEEE 802 and Class D IP protocols.

5. The method of claim 3 wherein the membership table is maintained on a wireless access point for forwarding the identified data packets to the at least one recipient.

6. The method of claim 5 comprising the step of transferring membership table information from a first wireless access point to a second wireless access point when the at least one recipient roams between respective access points.

10 7. The method of claim 6 wherein the step of transferring comprises issuing a general query from the at least one recipient to the second wireless access point, for soliciting membership report messages from the second wireless access point.

15 8. The method of claim 7 wherein the solicited report messages are used to update membership table information on the second wireless access point.

9. The method of claim 7 wherein the solicited report messages are used to update membership table information on associated Ethernet bridges and switches.

20 10. The method of claim 6 wherein the step of transferring comprises IGMP snooping on associated Ethernet bridges and switches.

25 11. The method of claim 10 wherein the second wireless access point generates a proxy IGMP membership message to the at least one recipient to update membership table information.

12. The method of claim 3 further comprising a step of maintaining the membership table by periodically receiving a membership report from each of the at least one recipients.

13. The method of claim 12 wherein the step of maintaining the membership table comprises maintaining an entry comprising a plurality of fields for each of the at least one recipients, wherein one of the fields comprises the predetermined identifier.

14. The method of claim 13 wherein another of the plurality of fields comprises an age field corresponding to a received time of a received time of a membership report and wherein the entry is discarded when a new membership report is not received within a threshold time period.

15. The method of claim 3 wherein the predetermined identifier is correlated with the source of the data packet.

16. The method of claim 3 wherein the predetermined identifier is correlated with the destination of the data packet.

17. An apparatus for selective data transmission comprising:  
means for transmitting a plurality of data packets wherein at least a portion of the data packets have at least one predetermined identifier;  
means for selecting the data packets having the predetermined identifier;  
means for forwarding the selected data packets to at least one recipient.

18. The apparatus of claim 17 wherein the means for transmitting comprises a local area network for sending the data packets to the means for forwarding, and wherein the means

5 for forwarding comprises an access point for wireless transmission of the identified data packets to the recipient.

19. The apparatus of claim 17 wherein the means for selecting comprises means for comparing the data packets with a membership table for selecting each predetermined identifier 10 respectively associated with each of the at least one recipients, and means for discarding data packets not having a predetermined identifier included in the membership table, so as to give priority to identified data packets.

15 20. The apparatus of claim 19 wherein the membership table selects identified data packets that are multicast packets each having a multicast destination address under at least one of IEEE 802 and Class D IP protocols.

20 21. The apparatus of claim 19 wherein the membership table is maintained on a wireless access point for forwarding the identified data packets to the at least one recipient.

22. The apparatus of claim 21 comprising the means for transferring membership table information from a first wireless access point to a second wireless access point when the at least one recipient roams between respective access points.

25 23. The apparatus of claim 22 wherein the step of transferring comprises issuing a general query from the at least one recipient to the second wireless access point, for soliciting membership report messages from the second wireless access point.

5        24. The apparatus of claim 23 wherein the solicited report messages are used to update membership table information on the second wireless access point.

10        25. The apparatus of claim 23 wherein the solicited report messages are used to update membership table information on associated Ethernet bridges and switches.

15        26. The apparatus of claim 22 wherein the means for transferring comprises IGMP snooping on associated Ethernet bridges and switches.

20        27. The method of claim 26 wherein the second wireless access point generates a proxy IGMP membership message to the at least one recipient to update membership table information.

25        28. The apparatus of claim 19 further comprising means for maintaining the membership table with periodically received membership reports from each of the at least one recipients.

30        29. The apparatus of claim 28 wherein the means for maintaining the membership table comprises means for maintaining an entry comprising a plurality of fields for each of the at least one recipients, wherein one of the fields comprises the predetermined identifier.

25        30. The apparatus of claim 28 wherein another of the plurality of fields comprises an age field corresponding to a received time of a membership report and wherein the entry is discarded when a new membership report is not received within a threshold time period.

31. The apparatus of claim 19 wherein the predetermined identifier is correlated with the source of the data packet.
32. The apparatus of claim 19 wherein the predetermined identifier is correlated with  
10 the destination of the data packet.